JAPAN · ECONOMIC · INSTITUTE

JEI

REPORT

NO. 17A May 1, 1987

IMPLICATIONS OF CONTRASTING U.S. AND JAPANESE SAVING BEHAVIOR

Summary

The large gap between the saving rates of Japan and the United States is a key difference between the two countries. The two major reasons for Japan's high saving rate are its high cost of housing and the demographic composition of its population, while the pro-saving nature of its tax system has a marginal influence. Japan's high saving rate contributes to its high level of capital formation and rapid productivity gains. Many economists, meanwhile, point to the U.S. saving rate, which last year fell to its lowest level since 1949, as a source of this country's economic problems and its difficulties in international competition.

The level of saving directly influences international capital flows, exchange rates and trade balances. Japan has become the world's leading creditor nation while the United States is now the globe's largest debtor country. Continued reliance on foreign capital may boost the debt to $650 billion by 1990, imposing a serious burden on the U.S. economy. To reverse this trend toward an ever-increasing foreign debt -- which other countries would at some point cease to finance in any case -- the United States will have to reduce the saving-investment imbalance. Given the difficulty of influencing private saving rates, the most effective way to reduce this country's reliance on foreign capital would be to significantly lower the government budget deficit.

International Comparisons of Saving Rates

Japan's saving rate is substantially higher than the ratios of other developed countries. Table 1 shows gross saving in Japan averaged 31.4 percent of gross domestic product between 1975 and 1985, compared to the 21.4 percent average of the member countries of the Organization for Economic Cooperation and Development. The U.S. rate, in contrast, is significantly below the average, and the disparity has grown larger as a result of a decline in this country's saving rate in the past 10 years.

Table 1: Gross Saving as a Percentage of GDP, 1975-85

Year	United States	Japan	West Germany	OECD Average
1975	18.1%	32.3%	20.9%	21.5%
1976	18.7	32.6	22.6	22.0
1977	19.7	32.0	21.8	22.3
1978	21.0	32.3	22.6	23.2
1979	21.0	31.5	22.7	23.0
1980	19.2	31.1	21.8	22.0
1981	19.8	31.1	20.2	21.6
1982	16.8	30.5	20.3	19.9
1983	15.8	29.8	21.1	19.4
1984	17.4	30.6	21.5	20.5
1985	16.5	31.4	22.2	20.2
Average	18.5	31.4	21.6	21.4

Source: Organization for Economic Cooperation and Development, Economic Outlook, December 1986, p. 159.

International comparisons should be made with caution, however, since institutional differences between countries can exaggerate the gap in reported saving rates. Household expenditures on consumer durables such as motor vehicles and household appliances, for example, are defined as consumption expenditures under the System of National Accounts used by the OECD. Because these goods provide services over a number of years, some economists argue they should be treated as capital expenditures and hence included in saving. Since Americans spend a relatively large share of their income on consumer durables, this revision would lower the gap between saving rates in Japan and the United States (see Table 2).

The figures could also be adjusted to include private-sector expenditures on research and development under savings. Combining these adjustments lowers the gap between national saving rates, but Japan's still remains substantially higher than other industrial countries. As a nation, the Japanese have demonstrated an unusual willingness to forgo present consumption for larger or more important benefits in the future.

The JEI REPORT (ISSN 0744-6489) is published weekly for $40 per year by the Japan Economic Institute of America, 1000 Connecticut Avenue, N.W., Washington, D.C. 20036. Second class postage paid at Washington, D.C. POSTMASTERS: Send address changes to JEI, 1000 Connecticut Avenue, N.W., Washington, D.C. 20036.

Table 2: Adjusted Gross Saving Rates, 1970-80

(percentage of gross national disposable income)

	United States	Japan	West Germany
System of National Accounts basis	18.6%	35.0%	25.1%
Including expenditures on consumer durables	24.3	37.0	n.a.
Including private outlays on research and development	19.5	36.1	25.9
Excluding taxes on expenditures	19.6	36.7	27.7
Combined adjustments	26.1	38.9	n.a.

Source: Derek Blades, "Alternative Measures of Saving," Organization for Economic Cooperation and Development Occasional Studies, June 1983, pp. 80-83.

Japan's household sector, which has been a large net lender to the business and government sectors, is the chief source of saving, with a rate that is about three times higher than the United States' (see Table 3). If expenditures on consumer durables are included in savings, the gap between the two countries contracts by only one-third.

Table 3: Household Saving Rates as Percent of Disposable Income, 1975-85

Year	United States	Japan	West Germany
1975	8.8%	22.8%	15.1%
1976	7.1	23.2	13.3
1977	6.1	21.8	12.2
1978	6.2	20.8	12.1
1979	6.0	18.2	12.6
1980	6.2	17.9	12.8
1981	6.9	18.3	13.6
1982	6.4	16.5	13.1
1983	5.2	16.3	11.8
1984	6.3	16.1	11.6
1985	5.2	15.7	11.4
Average	6.4	18.9	12.7

Source: Organization for Economic Cooperation and Development, Economic Surveys of the United States, Japan and West Germany.

Importance of Savings

Policymakers are concerned about saving rates for several reasons. Most importantly, savings provide the resources for capital formation. Increasing the size of the capital stock enhances the productivity of labor and raises the standard of living. Given the low U.S. saving rate, it is not surprising that capital formation as a share of gross national product has been substantially below the average of OECD countries in recent years.

The low rates of saving and investment in the United States have, in turn, contributed to the decline in labor productivity growth, an issue that has become a central theme in the current debate over competitiveness. Productivity growth, which averaged nearly 3 percent a year from 1948 through 1973, fell to only 0.7 percent during the 1973-81 period. Although there was some improvement in the early part of the current expansion, productivity gains are still low by historical standards. While the reasons for this remain unclear, higher saving and a larger capital stock should boost productivity growth.

Savings have played a key role in Japan's rapid economic growth. The large pool of household savings provided low-cost capital to industry and allowed business investment to increase at a 14.4 percent annual real rate over the 1952-73 period, without relying on foreign capital. Investment remains high by international standards; gross fixed capital formation in Japan averaged 30.1 percent of GDP from 1975 to 1985 compared to only 18.4 percent in the United States. This, in turn, contributed to the rapid 6.3 percent average annual growth in productivity in Japan's manufacturing sector during the same period.

Additionally, saving rates influence international capital flows, exchange rates and trade balances. A nation's current account balance (exports of goods and services minus imports of the same plus unilateral transfers) equals the difference between domestic saving and investment. When domestic investment and the government budget deficit do not absorb private saving, as in the case of Japan, the remainder is invested overseas. The outflow of capital is matched by an equivalent current account surplus. A current account deficit occurs when domestic investment and the government deficit exceed private saving. The shortage of domestic saving is offset by an inflow of capital from abroad that matches the current account deficit.

Table 4 shows the relationship between domestic savings and the current account balance. In 1985 gross private saving in the United States was $687.8 billion and gross private investment was $661.1 billion, leaving a private-sector balance of $26.7 billion. Since this was insufficient to fund the government deficit of $136.3 billion, the United States had to import almost $110 billion of capital. Allowing for statistical discrepancy, this matches the $117.7 billion current account deficit.

In Japan, in contrast, the large surplus of private-sector savings was not absorbed by government deficits, leaving $50.3 billion for investment abroad; over half of this outflow was invested in the United States. Japan's large capital outflows have made it the world's largest creditor nation with $129.8 billion in net foreign assets at the end of 1985, while the United States' reliance on foreign capital has made it the world's largest debtor nation, with a net foreign debt that now exceeds $200 billion and might reach

$650 billion by 1990. A foreign debt of that magnitude would require interest payments equivalent to about 2 percent of GNP, nearly matching this country's 2.5 percent real growth rate during the past 10 years.

Table 4: Domestic Saving-Investment Imbalance in 1985

(in billions of dollars)

Japan*	Saving/Investment	United States
$378.6	Total gross private saving	$687.8
284.3	Gross private domestic investment	661.1
94.3	Private sector balance	26.7
-44.0	General government balance	-136.3**
50.3	Overall balance	-109.6
49.2	Current account balance	-117.7

*Converted to dollars at the 1985 average exchange rate of Y238.5=$1.00.
**Includes a federal deficit of $198 billion and a $61.7 billion surplus at the state and local level.

Source: Council of Economic Advisers, Economic Report of the President, 1987, p. 276 and p. 358; Organization for Economic Cooperation and Development, Economic Survey of Japan, 1985, p. 46.

Why Do The Japanese Save So Much?

Nearly every national characteristic has been offered as an explanation for Japan's high saving rate. Some attribute it to the nation's cultural heritage, which encouraged nonmaterial values and slowed the rise in consumer expectations. This is not a satisfactory answer, however, since saving rates in prewar Japan were consistently lower than in the United States. Another explanation is based on the assumption that consumers' perceptions of their permanent income determines their consumption decisions and that they tend to save unexpected income. This theory implies that there is a lag in the adjustment of consumption to higher levels of disposable income. As a result, households would have consistently underestimated their permanent income during the high growth era, causing them to under-consume and save too much. This explanation, however, also seems implausible, given the continued high rate of saving following the deceleration of income growth after 1973. Moreover, this theory treats saving as if it is passively determined. Given the important motives for saving in Japan, it may be that saving takes priority in household decisions and consumption is determined as a residual.

The permanent income hypothesis is also used to explain how the bonus system could raise saving rates. Workers' incomes consist of wages and semi-annual bonuses. To the extent that the size of these bonuses is unexpected, the theory holds that households will base consumption expenditures on wage income and save their bonuses. In recent years, however, the bonus has become institutionalized as a standard source of income, accounting for about one-fifth of workers' total earnings. It appears unlikely that households would fail to take the bonus into account in their spending and saving decisions.

Another hypothesis is the alleged lack of an adequate social security system. It is argued that wage earners in countries with extensive public pension programs save less since they can depend on government pensions for their retirement, while in Japan individuals must save to provide for their old age. There are several problems with this argument, however. First, it is not clear whether public pensions do, in fact, reduce private savings. While the availability of social security reduces the need for personal funds to provide for retirement, public pension programs induce workers to retire earlier, thus encouraging private saving.

More importantly, the thesis is inaccurate. Japan's social security system, which was begun in 1961, is now in many ways more generous than the United States'; in fact, the system is so generous that the pension trust fund is likely to be exhausted in 20 years. Under the current program, a Japanese retiree with 32 years of participation in the system would receive a pension equivalent to 68 percent of current wages. If no changes are made, a payroll tax equivalent to almost 30 percent of wages (borne equally by employer and employee) will be necessary to pay for pensions in the year 2025 (see JEI Report No. 12A, March 27, 1987).

One explanation that is certainly significant is that the high cost of housing -- a reflection of the price of land -- requires the Japanese to save a large share of their income. With a total of 120 million people, Japan has a population half the size of the United States' living in an area only 4 percent as large. Moreover, nearly three-fourths of the country is mountainous, reducing the amount of land suitable for housing. And tax and agricultural policies further constrain the availability of land for housing. As a result, land holdings account for half the household wealth in Japan, as compared to only 7 percent in the United States.

The generally substandard quality of housing in Japan relative to other advanced countries does not reflect consumers' tastes. A recent poll showed that 90 percent of the residents of metropolitan areas would like to live in a detached, single-family home. Land prices, though, make the average price of such a home 6.3 times annual income, compared with about 3 times in the United States. In order to make monthly mortgage payments manageable, down payments average 35 percent of the purchase price, forcing prospective homeowners to amass large sums. Not surprisingly, government surveys show that households planning to buy a home have higher than average saving rates. As a result of these factors, the median age for a first home purchase is 40 in Japan compared to 30 in this country.

Demographic differences are another important factor in the high saving rate. According to the life-cycle theory developed by Nobel laureate economist Franco Modigliani, individuals prefer to maintain a stable level of consumption throughout their lives. Since Japanese workers' incomes generally rise steadily until retirement at age 55 or 60 before declining sharply, this implies that people will save during their middle years to repay debt and provide for old age.

During the postwar era, Japan's population has been relatively young in comparison to other advanced countries. In 1980, for example, 9 percent of its population was 65 or over; the average in the other six major industrial countries was 13.1 percent. The life-cycle theory predicts, therefore, that demographic factors should increase Japan's saving rate relative to other

countries. This conclusion is supported by Charles Yuji Horioka, who found that the lower ratio of older people to working-age persons in Japan explained over 90 percent of the gap between the Japanese and U.S. saving rates.*

Policies to Correct the Saving-Investment Imbalance

Many observers have proposed changes in Japan's tax system -- which is generally believed to favor saving -- in order to encourage consumption. Currently, for example, interest earned on bank and postal saving deposits is tax-free. As a result, between 58 and 70 percent of personal financial savings are not taxed. But unlike the U.S. system, interest payments on mortgages and consumer debt are not tax-deductible. The effect of the Liberal Democratic Party's plan to eliminate the tax exemption on small saving accounts is uncertain. Since there is considerable evidence that the Japanese are target savers, lowering the rate of return on saving accounts may actually force them to save a higher percentage of their income to achieve their goals.

On the other hand, policies to persuade the Japanese to save less may be short-sighted. Demographic changes that will make Japan's population one of the oldest in the world in the year 2025 are expected to substantially lower household savings. The saving rate has already begun to decline and cannot be blamed for the rise in Japan's current account surplus in the past few years. More attention should be focused on Tokyo's austere fiscal policy, which has lowered the government budget deficit, and on the level of private investment, which remains below the high growth years in terms of its share of GNP. Moreover, it seems unwise to encourage a rich country to consume more and save less when developing countries are short of capital. Japan's surplus savings have an important role to play, particularly since the world's largest economy, the United States, is a major importer of capital. World Bank president Barber Conable has called Japan's trade surplus "a world asset" that should be mobilized for aid.

Since one country's current account deficit is another country's surplus, it is important to consider the effect of developments in other countries on Japan's external balance. From 1981 to 1986, Japan's trade surplus increased $74 billion (see Table 5). The United States alone accounted for more than half of the rise, while the Organization of Petroleum Exporting Countries accounted for about one-fourth, reflecting the drop in the price of oil.

Economic developments in this country, particularly the need for foreign capital, have clearly had a major impact on Japan's economy. The shortage of capital drove U.S. interest rates up, attracting investments from abroad and keeping domestic private investment in Japan lower than it would have been otherwise. The demand for dollar-denominated assets raised the value of the dollar relative to other currencies, resulting in large U.S. trade deficits. The deterioration in the U.S. balance has boosted the trade surpluses of Japan, Canada, the European Community and Latin America.

Resolving the saving-investment imbalance in this country would help lower Japan's external surplus as well as end the U.S. deficit. One way to reduce the U.S. demand for foreign capital would be to raise the level of private saving. This was one of the goals of the 1981 personal tax cuts. Many

*Charles Yuji Horioka, "Why is Japan's Private Savings Role So High?," Finance and Development, December 1986, pp. 22-25.

economists believed that lower tax rates would encourage a rise in savings by increasing investors' after-tax returns. Thus far, however, the tax cuts have failed in this respect (see Table 6). This has been partially offset, though, by an increase in gross business savings. The effect on saving of last year's tax reform, which further reduced personal tax rates, is uncertain. And in light of the scant attention paid to saving in the bill, significant incentives to promote saving, such as the imposition of a consumption tax, appear unlikely.

Table 5: Japan's Trade Balance, 1981 and 1986

(in billions of dollars; exports f.o.b., imports c.i.f.)

	1981 Trade balance	1986 Trade balance	Increase in surplus	Share of increase in Japan's surplus
United States	$13.3	$51.4	$38.1	51.5%
OPEC*	-32.1	-12.4	19.7	26.6
European Community	10.3	16.7	6.3	8.6
Newly industrialized nations**	12.3	17.5	5.2	7.1
China	-0.2	4.2	4.4	5.9
Other developed countries	-1.3	0.8	2.1	2.9
Communist Bloc***	2.0	1.6	-0.4	-0.5
Latin America	3.8	3.3	-0.5	-0.7
Other developing countries	0.5	-0.5	-1.0	-1.3
Total	8.7	82.7	74.0	100.0

*Excludes Venezuela and Ecuador.
**Includes Taiwan, Korea, Hong Kong and Singapore.
***Excludes China.

Source: Ministry of Finance

Given the difficulty of improving the personal saving rate, the key to resolving the U.S. saving-investment imbalance is to cut the federal budget deficit from its current $200 billion-plus range. Since the current account balance is the inverse of the capital account, continued reliance on foreign capital is inconsistent with a substantial improvement in the U.S. trade deficit. Assuming the decline in the dollar during the past two years reduces the trade imbalance as expected, less foreign capital will be available. If government borrowing needs are not reduced, the likely result is a rise in U.S. interest rates that would crowd out the private sector and push the economy into recession. The long-awaited decline in the trade deficit would be accomplished by a drop in U.S. imports, hurting the world economy, particularly the developing countries with debt problems.

Table 6: U.S. Personal Saving Rate, 1970-86

(billions of dollars)

Year	Disposable personal income	Personal saving	Saving rate
1970	$715.6	$57.7	8.1%
1971	776.8	66.3	8.5
1972	839.6	61.4	7.3
1973	949.8	89.0	9.4
1974	1038.4	89.0	9.3
1975	1,142.8	104.6	9.2
1976	1,252.6	95.8	7.6
1977	1,379.3	90.7	6.6
1978	1,551.2	110.2	7.1
1979	1,729.3	118.1	6.8
1980	1,918.0	136.9	7.1
1981	2,127.6	159.4	7.5
1982	2,261.4	153.9	6.8
1983	2,428.1	130.6	5.4
1984	2,670.6	168.7	6.3
1985	2,828.0	143.3	5.1
1986*	2,973.7	116.3	3.9

*Preliminary.

Source: Department of Commerce

For further information, contact Randall Jones.

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The views expressed in this report are those of the author and do not necessarily represent those of the Japan Economic Institute.